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10/573,277	03/23/2006	Yoshio Yamazaki	JFE-06-1018	9391

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IP GROUP OF DLA PIPER LLP (US)
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EXAMINER

KESSLER, CHRISTOPHER S

ART UNIT	PAPER NUMBER
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1793

NOTIFICATION DATE	DELIVERY MODE
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09/17/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

Office Action Summary	Application No. 10/573,277	Applicant(s) YAMAZAKI ET AL.	
	Examiner CHRISTOPHER KESSLER	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-9 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-9 and 15-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4 June 2009 has been entered.

Status of Claims

2. Responsive to the amendment filed 4 June 2009, claims 7, 9 and 15 are amended. Claims 7-9 and 15-17 are currently under examination.

Status of Previous Rejections

3. Responsive to the amendment filed 4 June 2009, the rejections based on Asahi are withdrawn. The rejections based on Toyooka are maintained. Objections to the claims are withdrawn.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7-9 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,290,789 issued to Toyooka et al. (hereinafter "Toyooka").

Regarding claim 9, Toyooka teaches the invention substantially as claimed.

Toyooka teaches a steel pipe having good strength and ductility (see abstract).

Toyooka teaches that the pipe comprises 0.06-0.30% C, 0.01-1.5% Si, 0.01-2.0% Mn and 0.001-0.10% Al (see col. 5). Toyooka further teaches that the composition may include Cr up to 2% or Mo up to 1% (see col. 7). Toyooka further teaches that the impurities are limited to 0.01% of N, 0.006% of O, 0.025% of P and 0.02% of S (see cols. 8-9). The compositional ranges of the steel of Toyooka overlap the instantly claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Toyooka does not teach wherein the composition satisfies the equations (1) and (2) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77, and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art.

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In re Austin, et al., 149 USPQ 685, 688. In the instant case, Toyooka teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (1) and (2), because Toyooka teaches the same utility over the entire range of composition.

Toyooka further teaches that the steel pipe may be a seamless steel pipe as is known in the art (see col. 13). The terms “expandable” and “oil country” are statements of intended use for the pipe claimed. The claim preamble must be read in the context of the entire claim. The determination of whether preamble recitations are structural limitations or mere statements of purpose or use “can be resolved only on review of the entirety of the [record] to gain an understanding of what the inventors actually invented and intended to encompass by the claim.” Corning Glass Works, 868 F.2d at 1257, 9 USPQ2d at 1966. If the body of a claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble merely states, for example, the purpose or intended use of the invention, rather than any distinct definition of any of the claimed invention’s limitations, then the preamble is not considered a limitation and is of no significance to claim construction. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). In the instant case, the terms do not describe a particular structure in the article as claimed. Also, one of ordinary skill in the art would have recognized the utility for seamless steel pipes without an explicit description of said utility in Toyooka for the seamless pipes described.

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Toyooka further teaches that the microstructure of the pipe may comprise fine grains of ferrite (soft ferrite) along with a precipitated second phase (see col. 9). Toyooka teaches that the second phase may comprise bainite either alone or in combination with other phases (see col. 9). Toyooka teaches that the area of the second phase of the microstructure accounts for more than 30% of the total area, preferably between 30 and 60% of the total area (see col. 9). The amount of low temperature transforming phase of the steel of Toyooka overlap the instantly claimed microstructural amount, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected an amount of second phase within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 8, Toyooka teaches that the pipe comprises Cu up to 1% or Ni up to 2% (see col. 7), said ranges overlapping the claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Regarding claim 9, Toyooka is applied to the claim as stated above. Toyooka does not teach wherein the composition satisfies the equations (3) and (4) as claimed. However, it is well settled that there is no invention in the discovery of a general formula if it covers a composition described in the prior art, *In re Cooper and Foley* 1943 C.D. 357, 553 O.G. 177; 57 USPQ 117, *Taklatwalla v. Marburg*, 620 O.G. 685, 1949 C.D. 77,

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and *In re Pilling*, 403 O.G. 513, 44 F(2) 878, 1931 C.D. 75. In the absence of evidence to the contrary, the selection of the proportions of elements would appear to require no more than routine investigation by those of ordinary skill in the art. *In re Austin, et al.*, 149 USPQ 685, 688. In the instant case, Toyooka teaches a steel with an overlapping compositional range, and it would have been obvious to one of ordinary skill in the art at time of invention to have made a composition satisfying the equations (3) and (4), because Toyooka teaches the same utility over the entire range of composition.

Regarding claim 15, Toyooka is applied to the claim as stated above. Toyooka teaches the steel pipe is heated for hot rolling (see col. 10). Toyooka teaches that the rolling temperature is preferably in a range from 400-750° C (see col. 10). The range with a maximum temperature of 750° C overlaps the instantly claimed range of “about 800°C or more.” It would have been obvious to one of ordinary skill in the art at time of invention to have selected a hot rolling temperature within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05. Toyooka further teaches examples of steel pipe produced with rolling finish temperature above 800°C (see Tables 4, 6 and 8, for example).

Regarding claim 16, Toyooka teaches that the pipe is cooled after hot rolling (see col. 11). Toyooka teaches that the cooling may be air cooling, and that the cooling rate may be 1° C per second or more (see col. 11). Thus the cooling process of Toyooka overlaps the claimed step of holding in the region between Ac_1 and Ac_3 for about five minutes or more and then cooling.

Regarding claim 17, Toyooka teaches that the pipe comprises Cu up to 1% or Ni up to 2% (see col. 7), said ranges overlapping the claimed compositional ranges, establishing a prima facie case of obviousness. It would have been obvious to one of ordinary skill in the art at time of invention to have selected a composition within the range as claimed, because Toyooka teaches the same utility over an overlapping range. Applicant is further directed to MPEP 2144.05.

Response to Arguments

6. Applicant's arguments, filed 4 June 2009, with respect to Asahi have been fully considered and are persuasive. The rejections based on Asahi have been withdrawn. Particularly, the examiner agrees that Asahi does not teach a microstructure comprising soft ferrite in the amounts as claimed.

Applicant's arguments filed 4 June 2009 with regard to Toyooka have been fully considered but they are not persuasive.

Applicant argues that the structure of Toyooka is "sharply different from what the Applicants claim" (see Remarks, p. 10). However, the examiner disagrees. The examiner notes that Applicant seems to be citing structure embodiment 1) of Toyooka, which is very different from structural embodiment 2) of Toyooka in col. 9. Structural embodiment 2) overlaps the claimed microstructure. Toyooka (as cited above) teaches that the steel pipe comprises ferrite (soft ferrite) with a second phase precipitated therein. Toyooka (as cited above) teaches that that second phase may be bainite, alone or in combination with other phases, and is present in 30-60% area ratio,

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overlapping the claimed volume ratio of 5-70% of soft ferrite. This is essentially the same microstructure described in claims 7, 9 and 15. Applicant argues that Toyooka teaches a pipe with various improvements in mechanical properties, as described in col.

1. In response, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Despite the different goals set out by Toyooka in making a steel pipe, the claimed pipe would have been obvious to one of ordinary skill in the art for the reasons stated above.

In the remarks of June 4, 2009, at page 10, Applicant states

Also, Toyooka discloses in column 2, under the heading "Disclosure of the Invention," namely, "an art of a steel pipe raw material which diameter is reduced by warm drawing and is then applied for use as it is."

The examiner is uncertain as to what is being quoted, as the examiner could not find this quote at column 2, or anywhere else in Toyooka. The examiner acknowledges that the method of manufacture as claimed in claim 15 does not describe a warm drawing step. However, applicant has chosen to use the claim language "comprising" in claim 15, which therefore does not exclude such a step. Applicant is further directed to MPEP 2111.03. The method of manufacture is not claimed in claims 7-9 and 17, for example, which are drawn to an article of manufacture. Toyooka as cited above describes a steel pipe comprising a microstructure that is essentially the same as what is claimed, with an overlapping composition and ratio of low temperature phase (bainite) to ferrite (soft ferrite).

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Still further, the step of warm drawing of the pipe is well known in the art. For example, Applicant states that the raw pipe described in the instant application is "before diameter reduction in warm drawing as in Toyooka" (see Remarks, p. 10). Thus the omission of such a step (along with omission of its effect) would have been obvious to one of ordinary skill in the art. Applicant is further directed to MPEP 2144.04.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER KESSLER whose telephone number is (571)272-6510. The examiner can normally be reached on Mon-Fri, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Roy King/
Supervisory Patent Examiner, Art
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